



## FESHM 1040: ES&H ASSURANCE PROGRAM

### Revision History

Author	Description of Change	Revision Date
Nancy L. Grossman	Definitions and terms were standardized between each of the FESHM chapters and the CAPA procedure. Particularly Corrective Action, Preventive Action, Root Cause Analysis, ESHTRK became frESHTRK, Causal analysis was replaced with root cause analysis (from our earlier work on the Root Cause Analysis Procedure) and carried forward. We also added reference to (1004.1001 Fermilab Corrective & Preventive Action Procedure) and (1004.1002 Fermilab Root Cause Analysis Procedure) if they were not already present in FESHM chapters. Also added 3903 Contractor Assurance Lessons Learned Program under lessons learned.	March, 2011

	<b>Fermilab ES&amp;H Manual</b>	<b>FESHM 1040</b> <b>MARCH, 2011</b>
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## TABLE OF CONTENTS

<b>1.0</b>	<b>INTRODUCTION.....</b>	<b>2</b>
<b>2.0</b>	<b>RESPONSIBILITIES .....</b>	<b>2</b>
<b>2.1</b>	<b>Laboratory Director .....</b>	<b>2</b>
<b>2.2</b>	<b>ES&amp;H Director .....</b>	<b>2</b>
<b>2.3</b>	<b>D/S/C Heads .....</b>	<b>2</b>
<b>3.0</b>	<b>PROGRAM DESCRIPTION .....</b>	<b>2</b>
<b>3.1</b>	<b>Assessments.....</b>	<b>2</b>
<b>3.2</b>	<b>Incident/Event Reporting and Investigation.....</b>	<b>3</b>
<b>3.3</b>	<b>Worker Feedback Mechanisms .....</b>	<b>3</b>
<b>3.4</b>	<b>Issues Management .....</b>	<b>3</b>
<b>3.5</b>	<b>Dissenting Opinions .....</b>	<b>4</b>
<b>3.6</b>	<b>Lessons Learned .....</b>	<b>4</b>
<b>3.7</b>	<b>Performance Measures .....</b>	<b>4</b>



## 1.0 INTRODUCTION

Fermilab's ES&H Assurance program has been developed to identify and address program and performance deficiencies and opportunities for improvement. It provides the means and requirements to report deficiencies to responsible line management. It establishes a process to effectively implement corrective and preventive actions, and to share lessons learned across the Laboratory.

This chapter describes the system of assessments, event reporting, worker feedback mechanisms, issues management, lessons learned, and performance measures that are used to assure that the ES&H systems established at Fermilab are operating effectively and efficiently. This program covers environmental, health, safety, and emergency management systems.

This chapter is intended to be a summary chapter. Detailed information about the individual elements may be found described in other Fermilab ES&H Management Chapters. These chapters will be referenced in the body of this chapter.

## 2.0 RESPONSIBILITIES

### 2.1 Laboratory Director

The Laboratory Director is responsible for assuring that the ES&H assurance program is in place and effectively monitoring ES&H systems.

### 2.2 ES&H Director

- Fully participating in all of the programs that make up the ES&H Assurance program.
- Assuring that personnel assigned to ES&H assurance activities possess the experience, knowledge, skills, and abilities, including assuring and program specific expertise and training to conduct oversight activities ([FESHM 4010](#)).
- Forwarding to DOE FSO any identified deficiencies in DOE requirements for resolution.

### 2.3 D/S/C Heads

- Fully participating in all of the programs that make up the ES&H Assurance program.
- Assuring that personnel assigned to ES&H assurance activities possess the experience, knowledge, skills, and abilities to perform effectively.

## 3.0 PROGRAM DESCRIPTION

### 3.1 Assessments

ES&H Assessments and other structured operational awareness activities are all part of Fermilab's ES&H Assurance Program. The ES&H assessment program is described in [FESHM 1040.1](#), "ES&H Self-Assessment Program". Other assessments are described in other chapters, such as:

- [FESHM 6015](#), "High Protected Risk Inspection Program"
- [FESHM 8010](#), "Environmental Protection Program"

	<b>Fermilab ES&amp;H Manual</b>	FESHM 1040 March, 2011
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Monitoring and evaluation of subcontractor performance is discussed in

- [FESHM 7010](#), “ES&H Program for Construction ”
- [FESHM 7020](#), “Subcontractor Safety – Other Than Construction”

### 3.2 Incident/Event Reporting and Investigation

Fermilab’s processes for incident/event reporting and investigation consist of two elements: significant and reportable events, and incident investigation. The process for identifying, reporting, and investigation significant and reportable events is found in

- [FESHM 3010](#), “Significant and Reportable Occurrences”
- [FESHM 3020](#), “Incident Investigation and Analysis”
- [FESHM 8010](#), “Environmental Protection Program”
- [1004.1 Fermilab Corrective & Preventive Action Procedure](#)
- [1004.2 Fermilab Root Cause Analysis Procedure](#)

### 3.3 Worker Feedback Mechanisms

There are a variety of worker feedback mechanisms in place at Fermilab. The hazard analysis process in place requires input by workers, including employees, experimenters, and subcontractors. These mechanisms are described in:

- [FESHM 2060](#), “Work Planning and Hazard Analysis”
- [FESHM 1080](#), “ES&H Requirements for Experimenters”
- [FESHM 7010](#), “ES&H Program for Construction ”
- [FESHM 7020](#), “Subcontractor Safety – Other Than Construction”

The Fermilab ES&H Manual, including the Fermilab Radiological Control Manual, is the two documents that define Fermilab’s ES&H programs and management systems. As each chapter for the two manuals are developed or revised, opportunity for worker feedback is incorporated into the review process, as described in [FESHM 1050](#), “ES&H Manual Procedures”.

Worker feedback is also made possible through the Laboratory Safety Committee and its established technical subcommittees. This is described in [FESHM 1030](#), “ES&H Organization and Responsibilities”. Worker feedback mechanisms are described in [FESHM 1060](#), “Fermilab ES&H Concerns Program”. This chapter describes the process for documenting safety concerns or suggestions that would not ordinarily be raised verbally through the line management. If the author wishes to remain anonymous, arrangements for accommodating that desire are described as well. In addition, the DOE resources for reporting concerns are described as well (Office of Inspector General Hotline – phone, fax, e-mail, and postal address).

### 3.4 Issues Management

frESHTRK, which is Fermilab’s database for managing ES&H issues, including root cause, identification of corrective and preventive actions and controls, corrective and preventive action tracking and monitoring, closure of corrective and preventive actions, verification of effectiveness, and trend analysis are described in

- [FESHM 1040.1](#) “ES&H Self-Assessment Program”,

	<b>Fermilab ES&amp;H Manual</b>	FESHM 1040 March, 2011
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- [FESHM 1040.2](#), “frESHTRK Procedures”, and
- [FESHM 1040.3](#) “frESHTRK Procedures, Risk Assessment”
- [1004.1 Fermilab Corrective & Preventive Action Procedure](#)
- [1004.2 Fermilab Root Cause Analysis Procedure](#)

### 3.5 Dissenting Opinions

In any instance where there is a dissenting opinion by an assessment or investigation team member, a minority report is to be created and submitted up the line management chain, along with the final report. A copy of both reports shall be submitted to ES&H as well. The D/S Head and the ES&H Director will resolve any dispute with the team members. If the author of the minority report believes the issues to still be in dispute, he/she may refer the issue to the Laboratory Director.

### 3.6 Lessons Learned

Fermilab’s Lessons Learned program is described in [3903 Contractor Assurance Lessons Learned Program](#). Other references are:  
[FESHM 3010](#), “Significant and Reportable Occurrences”  
[FESHM 8010](#), “Environmental Protection Management”  
[1004.1 Fermilab Corrective & Preventive Action Procedure](#)  
[1004.2 Fermilab Root Cause Analysis Procedure](#)

### 3.7 Performance Measures

There are a variety of methods by which Fermilab measures its ES&H performance. The primary method is the Fermilab Leading/Lagging Indicator Program, discussed in [FESHM 1040.1](#), “ES&H Self-Assessment Program”. This chapter also describes the annual ES&H self-assignment provided to the Director, which analyzes program and processes. Quarterly analysis of incidents is performed per [FESHM 3010](#), “Significant and Reportable Occurrences”.